1731

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	MIZUSUGI ET AL.	Examiner:	S. GRIFFIN
Serial No.:	08/858,116	Group Art Unit:	1731
Filed:	MAY 19, 1997	Docket:	8373.52USF2
Due Date:	JUNE 26, 1999		
Title:	METHOD OF BENDING SHEET GLASS		

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described herein, are being deposited in the United States Postal Service, as first class mail, with sufficient postage, in an envelope addressed to: BOX AF Assistant Commissioner for Patents, Washington, D.C. 20231, on June 28, 1999.

By: Curtis B. Hamre
Curtis B. Hamre

BOX AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

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S/N 08/858,116

PATENT

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES
REPLY TO EXAMINER'S ANSWER

BOX AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This reply is in response to the Examiner's Answer dated April 26, 1999.

It was stated in "Appellant's Brief on Appeal" as follows:

> The references teach different processes and do not suggest the method of claim 10. In particular, *Seymour* very clearly requires a flat and rigid bottom plate for the vacuum platen. *Seymour* indicates that the flat vacuum platen is an important factor to the success of the invention. The process of *Seymour* uses the vacuum step to hold the sheet of glass momentarily while the shaping mold is properly placed and then releases the vacuum quickly so that the glass can fall into the shaping mold and be shaped by the impact. The process of *Seymour* is incredibly and clearly and distinctly different from the method of claim 10.

Appellant's Brief, page 5, lines 7–13. The Examiner's Answer comments on the portions of

Appellant's Brief as follows:

> it is considered that *Seymour* provides for shaping a sheet of glass by first using a first vacuum which is provided by vacuum platen 40 which conforms a portion of the glass sheet against its vacuum surface thus shaping it to the vacuum surface

thereof and then utilizing a second vacuum provided by the shaping blocks 120, 130 which shape a second area of the glass sheet by vacuum forming the second area of the glass sheet against the surface of the shaping blocks ... the flat and rigid bottom plate of *Seymour* clearly shapes the glass sheet thereagainst when a vacuum is applied therethrough thus the flat and rigid bottom plate of *Seymour* meets the limitations of the first shaping area and the attraction of a first area of the glass sheet thereagainst as in the instant claims ... it is considered that Appellant's are arguing that the shaping steps of the instant invention are somehow different from the shaping of the glass sheet of *Seymour* even though they shape a glass sheet in the same way, it is noted that the glass sheet of *Seymour* is shaped by applying a first vacuum to the glass sheet to shape a first area of the sheet and then applying a second vacuum to a second area of the sheet which clearly provides a shape to the glass sheet thus meeting the limitations of the instant invention.

Examiner's Answer, page 3, lines 17–21; page 4, lines 15–18; page 5, lines 1–6. The disclosure of *Seymour* with respect to the first embodiment discussed as follows:

> The flatness and rigidity of the bottom plate 41 of the vacuum platen are important factors for the successful practice of the present invention. Any significant deviation from flatness can result in distortion being imparted to the glass sheets.

Seymour, column 5, lines 64–68. With respect to another embodiment, *Seymour* discloses:

> the flat platen 40 may be vertically lowered to engage and lift the sheet 123 by means of vacuum. As the platen raises the glass sheet, a lifting frame 126 having curved shaping reels 124 on opposite sides and extending around the hearth block 125 is raised from its retracted position shown in Fig. 16 where the shaping rails are below the upper surface of the hearth block to follow the glass sheet as it is lifted, as shown in Fig. 17. Raising of the lifting frame 126 may be carried out by a cylinder 127. In order to prevent or minimize drooping of the extending portions of the glass sheet as it is being raised, the lifting frame 126 may rise at a rate to maintain the shaping rails in close proximity to or in light contact with the underside of the glass sheet. When the platen reaches its uppermost position as shown in Fig. 18, the lifting frame continues to move upwardly so that the shaping rails 124 bring the extending portions of the glass sheet into close proximity to the curved shaping surfaces of the shaping blocks 120. Preferably, vacuum is drawn through the shaping blocks so as to maintain the adjacent portions of the glass sheet in contact therewith as the lifting frame 126 is lowered to its original retracted position around the hearth block.

Seymour, column 11, lines 66 to column 12, line 20. With respect to yet a further embodiment, the disclosure of *Seymour* states:

> when the lifting frame and the vacuum platen are brought together, the fingers 141 force the shaping rails 134 to pivot upwardly to press the extending portions of the glass sheet into close proximity to the curved vacuum mold sections 130.

Seymour, column 12, lines 54–60.

The Examiner's Answer mischaracterizes the disclosure of *Seymour*. The disclosure of *Seymour* indicates that a lifting frame 126 continues to move upwardly so that shaping rails 124 bring the extending portion of the glass sheet into close proximity to the curved shaping surfaces of the shaping blocks 120. Then, vacuum is drawn so as to maintain the adjacent portions of the glass sheet in contact therewith. Likewise with respect to another embodiment, the disclosure indicates that the fingers 141 force the shaping rails 134 to pivot upwardly to press the extending portions of the glass sheet into close proximity to the curved vacuum mold sections 130. Thus, *Seymour* teaches the physical forcing by shaping rails of the glass sheet toward the shaping blocks wherein a vacuum may be drawn in order to maintain the glass sheet while the lifting frame is lowered. *Seymour* does not disclose or point to "utilizing a second vacuum provided by the shaping blocks 120, 130 which shape a second area of the glass sheet by vacuum forming the second area of the glass sheet against the surface of the shaping blocks". The other references used in the rejections add nothing with respect to this part of the method.

Claim 10 requires developing a first vacuum to attract a first area of the sheet of glass and "then developing a second vacuum in said second section chamber at a second time to attract a second area of the sheet of glass against the second shaping surface area to shape the second area of the sheet of glass complementary to the first area". The references do not teach or point to such limitation. *Seymour* is the only relevant reference and it teaches the use of shaping

rails pressing the glass sheet against the shaping blocks before a vacuum is drawn. When the references are characterized correctly, they do not teach or point to the limitations of the claims. Therefore, it is submitted that the rejections should be withdrawn.

Respectfully submitted,

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